WEST Search History

Hide Items Restore Clear Cancel

DATE: Tuesday, March 07, 2006

Hide?	<u>Set</u> Name	Query	<u>Hit</u> Count			
DB=PGPB,USPT,EPAB; PLUR=YES; OP=ADJ						
	L23	L23 L22 and L12				
	L22	L19 and L9				
	L21	L20 and L19				
	L20	(roffler or cheng or taipei).in.				
	L19	(424/138.1 424/141.1 424/155.1 424/179.1 424/180.1)![CCLS]				
	L18	4624846.pn.				
	L17	L16 not @ay>1998	61			
	L16	L10 and L15	592			
	L15	L12 near4 L13	84303			
	L14	L12 with L13	204658			
	L13	accelera\$ or enhance\$ or increas\$	3350129			
	L12	clearance or cleared or remov\$ or excrete\$	2827507			
	L11	anti-polyethylene glycol or (anti-poly(ethylene glycol)) or (anti-poly (ethylene) glycol)	4			
	L10	L9 with L8	7067			
	L9	(polyethylene glycol) or (poly(ethylene) glycol) or (poly(ethylene glycol)) or (methoxypoly(ethylene glycol))	228496			
	L8	antibod\$	162074			
	L7	antipeg or anti-peg	10			
	L6	L5 and peg	5			
	L5	L4 with L2	7			
	L4	prodrug	29131			
	L3	L2 and prodrug	29			
	L2	hydroxyaniline mustard	38			
	L1	hydroxylaniline mustard	0			

END OF SEARCH HISTORY

WEST Search History

Hide Items Restore	

DATE: Tuesday, March 07, 2006

Hide?	Set Name	<u>e Query</u>	Hit Count
	DB=PG	PB,USPT,EPAB; PLUR=YES; OP	=ADJ
	L10	APG3	6
	L9	L8 and prodrug	7
	L8	L7 and (clear\$ or remov\$)	314
	L7	L6 not @ay>1999	351
	L6	anti\$ NEAR2 15	778
	L5	polyethylene glycol	177636
	L4	L3 not @ay>1999	1
	L3	antipeg or (anti-peg) or (anti peg)	14
	L2	6077499.pn.	1
	L1	(6617118 or 6596849).pn.	2

END OF SEARCH HISTORY

NEWS HOURS

Welcome to STN International! Enter x:x LOGINID: SSSPTA1642BJF PASSWORD: TERMINAL (ENTER 1, 2, 3, OR ?):2 * * * * * * * * * * Welcome to STN International NEWS 1 Web Page URLs for STN Seminar Schedule - N. America NEWS 2 "Ask CAS" for self-help around the clock NEWS 3 DEC 05 CASREACT(R) - Over 10 million reactions available NEWS 4 DEC 14 2006 MeSH terms loaded in MEDLINE/LMEDLINE NEWS 5 DEC 14 2006 MeSH terms loaded for MEDLINE file segment of TOXCENTER NEWS 6 DEC 14 CA/CAplus to be enhanced with updated IPC codes NEWS 7 DEC 21 IPC search and display fields enhanced in CA/CAplus with the IPC reform NEWS 8 DEC 23 New IPC8 SEARCH, DISPLAY, and SELECT fields in USPATFULL/ USPAT2 NEWS 9 JAN 13 IPC 8 searching in IFIPAT, IFIUDB, and IFICDB NEWS 10 JAN 13 New IPC 8 SEARCH, DISPLAY, and SELECT enhancements added to INPADOC NEWS 11 JAN 17 Pre-1988 INPI data added to MARPAT NEWS 12 JAN 17 IPC 8 in the WPI family of databases including WPIFV NEWS 13 JAN 30 Saved answer limit increased NEWS 14 JAN 31 Monthly current-awareness alert (SDI) frequency added to TULSA NEWS 15 FEB 21 STN AnaVist, Version 1.1, lets you share your STN AnaVist visualization results NEWS 16 FEB 22 Status of current WO (PCT) information on STN NEWS 17 FEB 22 The IPC thesaurus added to additional patent databases on STN NEWS 18 FEB 22 Updates in EPFULL; IPC 8 enhancements added NEWS 19 FEB 27 New STN AnaVist pricing effective March 1, 2006 NEWS 20 FEB 28 MEDLINE/LMEDLINE reload improves functionality NEWS 21 FEB 28 TOXCENTER reloaded with enhancements NEWS 22 FEB 28 REGISTRY/ZREGISTRY enhanced with more experimental spectral property data NEWS 23 MAR 01 INSPEC reloaded and enhanced NEWS 24 MAR 03 Updates in PATDPA; addition of IPC 8 data without attributes FEBRUARY 15 CURRENT VERSION FOR WINDOWS IS V8.01a, NEWS EXPRESS CURRENT MACINTOSH VERSION IS V6.0c(ENG) AND V6.0Jc(JP), AND CURRENT DISCOVER FILE IS DATED 19 DECEMBER 2005. V8.0 AND V8.01 USERS CAN OBTAIN THE UPGRADE TO V8.01a AT http://download.cas.org/express/v8.0-Discover/

NEWS INTER General Internet Information
NEWS LOGIN Welcome Banner and News Items
NEWS PHONE Direct Dial and Telecommunication Network Access to STN
NEWS WWW CAS World Wide Web Site (general information)

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FILE 'HOME' ENTERED AT 10:47:25 ON 07 MAR 2006

=> file medline

COST IN U.S. DOLLARS

SINCE FILE TOTAL ENTRY SESSION

FULL ESTIMATED COST

0.21 0.21

FILE 'MEDLINE' ENTERED AT 10:47:38 ON 07 MAR 2006

FILE LAST UPDATED: 4 MAR 2006 (20060304/UP). FILE COVERS 1950 TO DATE.

On December 11, 2005, the 2006 MeSH terms were loaded.

The MEDLINE reload for 2006 is now (26 Feb.) available. For details on the 2006 reload, enter HELP RLOAD at an arrow prompt (=>). See also:

http://www.nlm.nih.gov/mesh/

http://www.nlm.nih.gov/pubs/techbull/nd04/nd04 mesh.html

http://www.nlm.nih.gov/pubs/techbull/nd05/nd05 med data changes.html

http://www.nlm.nih.gov/pubs/techbull/nd05/nd05 2006 MeSH.html

OLDMEDLINE is covered back to 1950.

MEDLINE thesauri in the /CN, /CT, and /MN fields incorporate the MeSH 2006 vocabulary.

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> s anti () PEG

616721 ANTI

6 ANTIS

616725 ANTI

(ANTI OR ANTIS)

9879 PEG

777 PEGS

10278 PEG

(PEG OR PEGS)

L1 7 ANTI (W) PEG

=> s 11 not py>2000

2953639 PY>2000

(PY>20009999)

L2 4 L1 NOT PY>2000

=> d ibib 1-4

L2 ANSWER 1 OF 4 ME

MEDLINE on STN

ACCESSION NUMBER:

2000191525 MEDLINE

DOCUMENT NUMBER:

PubMed ID: 10725103

TITLE:

Efficient clearance of poly(ethylene glycol)-modified

immunoenzyme with anti-PEG monoclonal

antibody for prodrug cancer therapy.

AUTHOR:

Cheng T L; Chen B M; Chern J W; Wu M F; Roffler S R

CORPORATE SOURCE:

Institute of Biomedical Sciences, Academia Sinica, Taipei,

Taiwan.

Bioconjugate chemistry, (2000 Mar-Apr) Vol. 11, No. 2, pp. SOURCE:

258-66.

Journal code: 9010319. ISSN: 1043-1802.

United States PUB. COUNTRY:

DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)

LANGUAGE:

English

FILE SEGMENT:

Priority Journals

ENTRY MONTH:

200005

ENTRY DATE:

Entered STN: 20000613

Last Updated on STN: 20000613 Entered Medline: 20000531

ANSWER 2 OF 4 T.2 ACCESSION NUMBER:

MEDLINE on STN 1998089627 MEDLINE

DOCUMENT NUMBER:

PubMed ID: 9428158

TITLE:

Immobilization of L-asparaginase into a biocompatible poly(ethylene glycol)-albumin hydrogel: evaluation of

performance in vivo.

AUTHOR:

Jean-Francois J; D'Urso E M; Fortier G

CORPORATE SOURCE:

Departement de Chimie-Biochimie, Universite du Quebec,

Montreal, Canada.

SOURCE:

Biotechnology and applied biochemistry, (1997 Dec) Vol. 26

(Pt 3), pp. 203-12.

Journal code: 8609465. ISSN: 0885-4513.

PUB. COUNTRY:

ENGLAND: United Kingdom

DOCUMENT TYPE:

Journal; Article; (JOURNAL ARTICLE)

LANGUAGE:

English

FILE SEGMENT:

Priority Journals

ENTRY MONTH:

199802

ENTRY DATE:

Entered STN: 19980217

Last Updated on STN: 20000303 Entered Medline: 19980205

ANSWER 3 OF 4 T₁2 ACCESSION NUMBER:

MEDLINE on STN 84160696 MEDLINE

DOCUMENT NUMBER:

PubMed ID: 6706424

TITLE:

Polyethylene glycol reactive antibodies in man: titer distribution in allergic patients treated with monomethoxy polyethylene glycol modified allergens or placebo, and in

healthy blood donors.

AUTHOR:

Richter A W; Akerblom E

SOURCE:

International archives of allergy and applied immunology,

(1984) Vol. 74, No. 1, pp. 36-9.

Journal code: 0404561. ISSN: 0020-5915.

PUB. COUNTRY: DOCUMENT TYPE: Switzerland

LANGUAGE:

Journal; Article; (JOURNAL ARTICLE)

English

FILE SEGMENT:

Priority Journals

ENTRY MONTH:

198405

ENTRY DATE:

Entered STN: 19900319

Last Updated on STN: 19970203 Entered Medline: 19840522

ANSWER 4 OF 4 L2

MEDLINE on STN

ACCESSION NUMBER: DOCUMENT NUMBER:

83107741 MEDLINE

PubMed ID: 6401699

TITLE:

Antibodies against polyethylene glycol produced in animals

by immunization with monomethoxy polyethylene glycol

modified proteins.

AUTHOR:

Richter A W; Akerblom E

SOURCE:

International archives of allergy and applied immunology,

(1983) Vol. 70, No. 2, pp. 124-31.

Journal code: 0404561. ISSN: 0020-5915.

PUB. COUNTRY: Switzerland

DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)

LANGUAGE: English

FILE SEGMENT: Priority Journals

ENTRY MONTH: 198303

ENTRY DATE: Entered STN: 19900318

Last Updated on STN: 19900318 Entered Medline: 19830311

=> d abs 3

L2 ANSWER 3 OF 4 MEDLINE on STN

AB Antibodies to polyethylene glycol (PEG) were analyzed in patients with various allergies and in healthy blood donors employing passive hemagglutination. In untreated allergic patients and in healthy blood donors, naturally occurring anti-PEG antibody titers between 32 and 512 were seen in 3.3 and 0.2%, respectively. During hyposensitization with monomethoxy polyethylene glycol modified ragweed extract and honey bee venom, respectively, the patients showed an anti-PEG antibody response. Titers of 32-512 were found in 50% of the patients directly after the first treatment course. After 2 years of treatment the percentage of patients with such titers declined to 28.5%. Mercaptoethanol treatment of sera indicated that the anti-PEG antibodies predominantly were of the IgM isotype. The weak IgM response found in treated patients is considered to be of no clinical significance.

=> s ABS 2 5100 ABS 3230499 2 L3 42 ABS 2 (ABS(W)2)

=> d abs 12 2

L2 ANSWER 2 OF 4 MEDLINE on STN

The L-asparaginase of Escherichia coli (ASNase) is currently used in combination with antineoplastic drugs to treat various lymphoblastic leukaemias. However, its use is limited by severe immunological reactions and the short serum half-life associated with the enzyme. Immobilization of ASNase into a biocompatible matrix can greatly decrease the immunogenicity of the enzyme, increase its half-life in vivo and its therapeutic index. Thus the E. coli ASNase was immobilized in a biocompatible hydrogel made of rat serum albumin and poly(ethylene glycol) (PEG; molecular mass 10 kDa). The effectiveness of this enzymic bioreactor to deplete serum L-asparagine was evaluated after its peritoneal implantation in rats. Seven units of immobilized ASNase/rat depleted serum asparagine to an undetectable level (< 1 microM) during 6 days, while 5 units of immobilized ASNase/rat decreased the level of serum asparagine by 85-90% during at least 2 days. Under both conditions asparagine levels returned to normal about 10 days after surgery, and hydrogels still retained 80% of their enzymic activity when assayed in vitro. After 10-14 days in vivo, hydrogels became opaque and surrounded by a fibrotic capsule with a few inflammatory sites. Nevertheless, the enzymic hydrogel showed great stability in vivo, and, after 4 months of implantation, 12% of the initial ASNase activity was still present. At 6 months, histological analysis showed stabilization of the fibrotic capsule thickness. Assays on the levels of ASNase and asparagine synthetase indicated an induction of the latter activity, mainly in the pancreas when compared with the level observed in spleen or liver. ELISA tests at 28

```
rats. As observed with other enzyme-immobilization systems used in vivo,
     the formation of fibroblast-like cell layers around the implant, which
     block the translocation of the substrate into the enzymic matrix, is the
     major factor affecting the performance and longevity of the bioreactor.
=> s anti () (polyethylene glycol)
        616721 ANTI
             6 ANTIS
        616725 ANTI
                 (ANTI OR ANTIS)
         35662 POLYETHYLENE
          5898 POLYETHYLENES
         38703 POLYETHYLENE
                 (POLYETHYLENE OR POLYETHYLENES)
         23440 GLYCOL
         28763 GLYCOLS
         41826 GLYCOL
                 (GLYCOL OR GLYCOLS)
         23715 POLYETHYLENE GLYCOL
                 (POLYETHYLENE (W) GLYCOL)
             1 ANTI (W) (POLYETHYLENE GLYCOL)
=> d ibib
   ANSWER 1 OF 1
                       MEDLINE on STN
ACCESSION NUMBER:
                    1999278171
                                   MEDLINE
DOCUMENT NUMBER:
                   PubMed ID: 10346886
TITLE:
                    Accelerated clearance of polyethylene glycol-modified
                    proteins by anti-polyethylene
                    glycol IgM.
                    Cheng T L; Wu P Y; Wu M F; Chern J W; Roffler S R
AUTHOR:
                    Institute of Biomedical Sciences, Academia Sinica, College
CORPORATE SOURCE:
                    of Medicine, National Taiwan University, Taipei, Taiwan.
SOURCE:
                    Bioconjugate chemistry, (1999 May-Jun) Vol. 10, No. 3, pp.
                    520-8.
                    Journal code: 9010319. ISSN: 1043-1802.
PUB. COUNTRY:
                    United States
DOCUMENT TYPE:
                    Journal; Article; (JOURNAL ARTICLE)
LANGUAGE:
                    English
                    Priority Journals
FILE SEGMENT:
                    199907
ENTRY MONTH:
ENTRY DATE:
                    Entered STN: 19990715
                    Last Updated on STN: 19990715
                    Entered Medline: 19990707
=> s antibod? (against or to) (peg or (polyethylene glycol))
MISSING OPERATOR 'ANTIBOD? (AGAINST'
The search profile that was entered contains terms or
nested terms that are not separated by a logical operator.
=> s antibod? (s) (against or to) (s) (peg or (polyethylene glycol))
        708410 ANTIBOD?
        455081 AGAINST
             6 AGAINSTS
        455085 AGAINST
                 (AGAINST OR AGAINSTS)
       7985384 TO
           859 TOS
```

days and 120 days showed the presence of anti-ASNase (and, in lower

amounts, anti-PEG) antibodies in sera of implanted

L4

7985637 TO

```
(TO OR TOS)
          9879 PEG
           777 PEGS
         10278 PEG
                 (PEG OR PEGS)
         35662 POLYETHYLENE
          5898 POLYETHYLENES
         38703 POLYETHYLENE
                 (POLYETHYLENE OR POLYETHYLENES)
         23440 GLYCOL
         28763 GLYCOLS
         41826 GLYCOL
                 (GLYCOL OR GLYCOLS)
         23715 POLYETHYLENE GLYCOL
                 (POLYETHYLENE (W) GLYCOL)
L5
           456 ANTIBOD? (S) (AGAINST OR TO) (S) (PEG OR (POLYETHYLENE GLYCOL))
=> s clear? or remov?
        358107 CLEAR?
        281667 REMOV?
Lб
        626149 CLEAR? OR REMOV?
=> s 16 and 15
            68 L6 AND L5
1.7
=> s 17 not py>1999
       3443289 PY>1999
                 (PY>19999999)
            49 L7 NOT PY>1999
L8
=> d scan
'DISPLAY SCAN' IS NOT VALID IN CURRENT FILE
The DISPLAY SCAN command is not valid in the current file.
Enter HELP FORMATS and HELP DFIELDS to see valid DISPLAY
options in current file.
=> d 11
L1
     ANSWER 1 OF 7
                       MEDLINE on STN
ΑN
     2005175711
                    MEDLINE
DN
     PubMed ID: 15809678
     Repeated injections of PEG-PE liposomes generate anti-
TI
     PEG antibodies.
     Sroda Kamila; Rydlewski Janusz; Langner Marek; Kozubek Arkadiusz; Grzybek
ΑU
     Michal; Sikorski Aleksander F
CS
     Academic Centre for the Biotechnology of Lipid Aggregates,
     Przybyszewskiego 63/77, 51-148 Wroclaw, Poland.. afsbc@ibmb.uni.wroc.pl
     Cellular & molecular biology letters, (2005) Vol. 10, No. 1, pp. 37-47.
SO
     Journal code: 9607427. ISSN: 1425-8153.
CY
     Poland
DT
     Journal; Article; (JOURNAL ARTICLE)
     English
LΑ
     Priority Journals
FS
EM
     200508
     Entered STN: 20050406
ED
     Last Updated on STN: 20050806
     Entered Medline: 20050805
```

=> d 18 1

L8 ANSWER 1 OF 49 MEDLINE on STN

```
PubMed ID: 10403934
DN
ΤI
     Heat treatment of normal human sera reveals antibodies to bactericidal
     permeability-inducing protein (BPI).
     Brownlee A A; Lockwood C M
ΑIJ
     University of Cambridge, School of Clinical Medicine, Addenbrooke's
CS
     Hospital, Cambridge, UK.
     Clinical and experimental immunology, (1999 Jul) Vol. 117, No. 1, pp.
SO
     183 - 9.
     Journal code: 0057202. ISSN: 0009-9104.
CY
     ENGLAND: United Kingdom
     Journal; Article; (JOURNAL ARTICLE)
DT
LΑ
     English
FS
     Priority Journals
     199907
EΜ
     Entered STN: 19990806
ED
     Last Updated on STN: 19990806
     Entered Medline: 19990728
=> d kwic
L8
     ANSWER 1 OF 49
                        MEDLINE on STN
     . . . was maximal at 56 degrees C, with substantial antibody
AΒ
     demonstrable after only 5 min at this temperature. In experiments using
     polyethylene glycol (PEG) 6000 to
     remove immune complexes, the effect of heating could be abrogated
     by preincubation with 8% PEG, which suggested that these anti
     BPI antibodies might be complexed in sera. After passage of
     normal plasma over a protein G column, the acid-eluted fraction contained
     elevated.
=> s antibod? (w) (against or to) (w) (peg or (polyethylene glycol))
        708410 ANTIBOD?
        455081 AGAINST
             6 AGAINSTS
        455085 AGAINST
                 (AGAINST OR AGAINSTS)
       7985384 TO
           859 TOS
       7985637 TO
                 (TO OR TOS)
          9879 PEG
           777 PEGS
         10278 PEG
                 (PEG OR PEGS)
         35662 POLYETHYLENE
          5898 POLYETHYLENES
         38703 POLYETHYLENE
                 (POLYETHYLENE OR POLYETHYLENES)
         23440 GLYCOL
         28763 GLYCOLS
         41826 GLYCOL
                 (GLYCOL OR GLYCOLS)
         23715 POLYETHYLENE GLYCOL
                 (POLYETHYLENE (W) GLYCOL)
            11 ANTIBOD? (W) (AGAINST OR TO) (W) (PEG OR (POLYETHYLENE GLYCOL))
L9
=> s 19 and 16
             0 L9 AND L6
L10
=> s 19 not py>2000
```

1999333743

ΑN

MEDLINE

2953639 PY>2000

(PY>20009999)

L11

8 L9 NOT PY>2000

=> d ibib 1-8

L11 ANSWER 1 OF 8

MEDLINE on STN

ACCESSION NUMBER:

1999382152 MEDLINE

DOCUMENT NUMBER:

PubMed ID: 10454349

TITLE:

Detection and characterization of antibodies to PEG-IFN-alpha2b using surface plasmon

resonance.

AUTHOR:

Takacs M A; Jacobs S J; Bordens R M; Swanson S J

CORPORATE SOURCE:

Schering-Plough Research Institute, Kenilworth, NJ 07033,

SOURCE:

Journal of interferon & cytokine research : the official journal of the International Society for Interferon and Cytokine Research, (1999 Jul) Vol. 19, No. 7, pp. 781-9.

Journal code: 9507088. ISSN: 1079-9907.

PUB. COUNTRY:

United States

DOCUMENT TYPE:

Journal; Article; (JOURNAL ARTICLE)

LANGUAGE:

English

FILE SEGMENT:

Priority Journals

ENTRY MONTH:

199910

ENTRY DATE:

Entered STN: 19991101

Last Updated on STN: 19991101 Entered Medline: 19991019

L11 ANSWER 2 OF 8

MEDLINE on STN 97431634 MEDLINE

ACCESSION NUMBER: DOCUMENT NUMBER:

CORPORATE SOURCE:

PubMed ID: 9287139

TITLE:

Immunoliposomes bearing polyethyleneglycol-coupled Fab' fragment show prolonged circulation time and high

extravasation into targeted solid tumors in vivo.

AUTHOR:

Maruyama K; Takahashi N; Tagawa T; Nagaike K; Iwatsuru M Faculty of Pharmaceutical Sciences, Teikyo University,

Kanagawa, Japan.. maruyama@pharm.teikyo-u.ac.jp

SOURCE:

FEBS letters, (1997 Aug 11) Vol. 413, No. 1, pp. 177-80.

Journal code: 0155157. ISSN: 0014-5793.

PUB. COUNTRY:

Netherlands

DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)

LANGUAGE: English

FILE SEGMENT:

Priority Journals

ENTRY MONTH:

199710

ENTRY DATE:

Entered STN: 19971224

Last Updated on STN: 19971224 Entered Medline: 19971030

L11 ANSWER 3 OF 8 ACCESSION NUMBER:

MEDLINE on STN 93165399

DOCUMENT NUMBER:

MEDLINE PubMed ID: 8433874

TITLE:

Enzyme replacement therapy with polyethylene

glycol-adenosine deaminase in adenosine deaminase

deficiency: overview and case reports of three patients,

including two now receiving gene therapy. Hershfield M S; Chaffee S; Sorensen R U

AUTHOR: CORPORATE SOURCE:

Department of Medicine, Duke University Medical Center,

Durham, North Carolina 27710.

CONTRACT NUMBER:

DK20902 (NIDDK) RR00080 (NCRR)

SOURCE:

Pediatric research, (1993 Jan) Vol. 33, No. 1 Suppl, pp.

S42-7; discussion S47-8. Ref: 19

Journal code: 0100714. ISSN: 0031-3998.

PUB. COUNTRY:

United States

DOCUMENT TYPE:

(CASE REPORTS)

Journal; Article; (JOURNAL ARTICLE)

General Review; (REVIEW)

LANGUAGE:

English

FILE SEGMENT:

Priority Journals

ENTRY MONTH:

199303

ENTRY DATE:

Entered STN: 19930402

Last Updated on STN: 19930402 Entered Medline: 19930318

L11 ANSWER 4 OF 8 ACCESSION NUMBER:

MEDLINE on STN 86007216 MEDLINE PubMed ID: 2412977

DOCUMENT NUMBER: TITLE:

Studies on antigenicity of the polyethylene glycol

(PEG) -modified uricase.

AUTHOR:

Tsuji J; Hirose K; Kasahara E; Naitoh M; Yamamoto I

SOURCE:

International journal of immunopharmacology, (1985) Vol. 7,

No. 5, pp. 725-30.

Journal code: 7904799. ISSN: 0192-0561.

PUB. COUNTRY:

ENGLAND: United Kingdom

DOCUMENT TYPE:

Journal; Article; (JOURNAL ARTICLE)

LANGUAGE:

English

FILE SEGMENT:

Priority Journals

ENTRY MONTH:

198511

ENTRY DATE:

Entered STN: 19900321

Last Updated on STN: 19900321 Entered Medline: 19851121

L11 ANSWER 5 OF 8 ACCESSION NUMBER:

MEDLINE on STN 85156525 MEDLINE

DOCUMENT NUMBER:

PubMed ID: 3980111

TITLE:

Immune responses to polyethylene glycol modified

L-asparaginase in mice.

AUTHOR:

Kawamura K; Igarashi T; Fujii T; Kamisaki Y; Wada H;

Kishimoto S

SOURCE:

International archives of allergy and applied immunology,

(1985) Vol. 76, No. 4, pp. 324-30.

Journal code: 0404561. ISSN: 0020-5915.

PUB. COUNTRY:

Switzerland

DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)

LANGUAGE:

English

FILE SEGMENT:

Priority Journals

ENTRY MONTH:

198505

ENTRY DATE:

Entered STN: 19900320

Last Updated on STN: 19900320 Entered Medline: 19850513

L11 ANSWER 6 OF 8 ACCESSION NUMBER:

MEDLINE on STN 84160696 MEDLINE PubMed ID: 6706424

DOCUMENT NUMBER: TITLE:

Polyethylene glycol reactive antibodies in man: titer distribution in allergic patients treated with monomethoxy polyethylene glycol modified allergens or placebo, and in

healthy blood donors.

AUTHOR:

Richter A W; Akerblom E

SOURCE:

International archives of allergy and applied immunology,

(1984) Vol. 74, No. 1, pp. 36-9.

Journal code: 0404561. ISSN: 0020-5915.

PUB. COUNTRY:

Switzerland

DOCUMENT TYPE:

Journal; Article; (JOURNAL ARTICLE)

LANGUAGE:

English

FILE SEGMENT:

Priority Journals

ENTRY MONTH:

198405

ENTRY DATE:

Entered STN: 19900319

Last Updated on STN: 19970203 Entered Medline: 19840522

L11 ANSWER 7 OF 8 ACCESSION NUMBER: DOCUMENT NUMBER:

MEDLINE on STN 83107741 MEDLINE PubMed ID: 6401699

DOCOMENT.

Antibodies against polyethylene

TITLE:

glycol produced in animals by immunization with
monomethoxy polyethylene glycol modified proteins.

AUTHOR:

Richter A W; Akerblom E

SOURCE:

International archives of allergy and applied immunology,

(1983) Vol. 70, No. 2, pp. 124-31.

Journal code: 0404561. ISSN: 0020-5915.

PUB. COUNTRY:

Switzerland

DOCUMENT TYPE:

Journal; Article; (JOURNAL ARTICLE)

LANGUAGE:

English

FILE SEGMENT:

Priority Journals

ENTRY MONTH:

198303

ENTRY DATE:

Entered STN: 19900318

Last Updated on STN: 19900318 Entered Medline: 19830311

L11 ANSWER 8 OF 8 ACCESSION NUMBER:

MEDLINE on STN 77187848 MEDLINE PubMed ID: 16907

DOCUMENT NUMBER: TITLE:

Effect of covalent attachment of polyethylene glycol on

immunogenicity and circulating life of bovine liver

catalase.

AUTHOR: SOURCE:

Abuchowski A; McCoy J R; Palczuk N C; van Es T; Davis F F The Journal of biological chemistry, (1977 Jun 10) Vol.

252, No. 11, pp. 3582-6.

Journal code: 2985121R. ISSN: 0021-9258.

PUB. COUNTRY:

United States

DOCUMENT TYPE:

Journal; Article; (JOURNAL ARTICLE)

LANGUAGE:

English

FILE SEGMENT:

Priority Journals

ENTRY MONTH:

197707

ENTRY DATE:

Entered STN: 19900314

Last Updated on STN: 19950206 Entered Medline: 19770723

=> d abs 8

L11 ANSWER 8 OF 8 MEDLINE on STN

Methoxypolyethylene glycols of 1900 daltons (PEG-1900) or 5000 daltons (PEG-5000) were covalently attached to bovine liver catalase using 2,4,6-trichloro-s-triazine as the coupling agent. Rabbits were immunized by the intravenous and intramuscular routes with catalase modified by covalent attachment of PEG-1900 to 43% of the amino groups (PEG-1900-catalase). The intravenous antiserum did not yield detectable antibodies against PEG-1900-catalase or native catalase, as determined by Ouchterlony and complement fixation methods, whereas the intramuscular antiserum contained antibodies to both PEG-1900-catalase and catalase. PEG-1900 did not react with either antiserum. Catalase was prepared in which PEG-5000 was attached to 40% of the amino groups (PEG-5000-catalase). This catalase preparation did not react with either antiserum. PEG-1900-catalase retained 93% of its

enzymatic activity; PEG-5000-catalase retained 95%. PEG-5000-catalase resisted digestion by trypsin, chymotrypsin, and a protease from Streptomyces griseus. PEG-1900-catalase and PEG-5000-catalase exhibited

enhanced circulating lives in the blood of acatalasemic mice during repetitive intravenous injections. No evidence was seen of an immune response to injections of the modified enzymes. Mice injected repetitively with PEG-5000-catalase remained immune competent for unmodieied catalase, and no evidence of tissue or organ damage was seen.

=> file caplsu 'CAPLSU' IS NOT A VALID FILE NAME SESSION CONTINUES IN FILE 'MEDLINE'

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COST IN U.S. DOLLARS

SINCE FILE TOTAL ENTRY SESSION 7.04

7.25

FULL ESTIMATED COST

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=> s anti () PEG

398531 ANTI

9 ANTIS

398538 ANTI

(ANTI OR ANTIS)

35011 PEG

1176 PEGS

35503 PEG

(PEG OR PEGS)

L12

10 ANTI (W) PEG

=> s 112 not py>2000

5537520 PY>2000

5 L12 NOT PY>2000 L13

=> d ibib 1-5

L13 ANSWER 1 OF 5 CAPLUS COPYRIGHT 2006 ACS on STN ACCESSION NUMBER: 2000:334699 CAPLUS

TITLE: Bioactive poly(ethylene glycol)-insulin conjugates

> with enhanced stability and reduced immunogenicity. Hinds, Ken; Joss, Lisa; Rihova, Blanka; Koh, Jae Joon;

AUTHOR(S):

Liu, Feng; Baudys, Miroslav; Kim, Sung Wan

Department of Pharmaceutics and Pharmaceutical CORPORATE SOURCE:

Chemistry / CCCD, University of Utah, Salt Lake City,

UT, 84112, USA

Book of Abstracts, 219th ACS National Meeting, San SOURCE:

Francisco, CA, March 26-30, 2000 (2000), POLY-511.

American Chemical Society: Washington, D. C.

CODEN: 69CLAC

DOCUMENT TYPE: Conference; Meeting Abstract

LANGUAGE: English

L13 ANSWER 2 OF 5 CAPLUS COPYRIGHT 2006 ACS on STN

2000:125916 CAPLUS ACCESSION NUMBER:

132:298658 DOCUMENT NUMBER:

Efficient Clearance of Polyethylene glycol-Modified TITLE:

Immunoenzyme with Anti-PEG

Monoclonal Antibody for Prodrug Cancer Therapy

Cheng, Tian-Lu; Chen, Bing-Mae; Chern, Ji-Wang; Wu, AUTHOR(S):

Ming-Fang; Roffler, Steve R.

Institute of Biomedical Sciences, Academia Sinica, CORPORATE SOURCE:

School of Pharmacy National Taiwan University College

of Medicine, Taipei, Taiwan

Bioconjugate Chemistry (2000), 11(2), 258-266 SOURCE:

CODEN: BCCHES; ISSN: 1043-1802

PUBLISHER: American Chemical Society

DOCUMENT TYPE: Journal English LANGUAGE:

REFERENCE COUNT: 57 THERE ARE 57 CITED REFERENCES AVAILABLE FOR THIS

RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L13 ANSWER 3 OF 5 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1999:239090 CAPLUS

DOCUMENT NUMBER: 131:63325

TITLE: Accelerated Clearance of Polyethylene Glycol-Modified

Proteins by Anti-Polyethylene Glycol IgM

AUTHOR(S): Cheng, Tian-Lu; Wu, Pin-Yi; Wu, Ming-Fang; Chern,

Ji-Wang; Roffler, Steve R.

CORPORATE SOURCE: Institute of Biomedical Sciences, Academia Sinica,

Taipei, Taiwan

Bioconjugate Chemistry (1999), 10(3), 520-528 SOURCE:

CODEN: BCCHES; ISSN: 1043-1802

American Chemical Society PUBLISHER:

DOCUMENT TYPE: Journal English LANGUAGE:

THERE ARE 48 CITED REFERENCES AVAILABLE FOR THIS REFERENCE COUNT: 48

RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L13 ANSWER 4 OF 5 CAPLUS COPYRIGHT 2006 ACS on STN

1998:24552 CAPLUS ACCESSION NUMBER:

128:162592 DOCUMENT NUMBER:

Immobilization of L-asparaginase into a biocompatible TITLE:

poly(ethylene glycol)-albumin hydrogel: evaluation of

performance in vivo

Jean-Francois, Jacques; D'urso, Edith Marie; Fortier, AUTHOR(S):

Guy

Laboratoire d'Enzymologie Appliquee, Departement de CORPORATE SOURCE:

Chimie-Biochimie, Universite du Quebec, Montreal,

Montreal, QC, H3C 3P8, Can.

Biotechnology and Applied Biochemistry (1997), 26(3), SOURCE:

203-212

CODEN: BABIEC; ISSN: 0885-4513

PUBLISHER: Portland Press Ltd.

DOCUMENT TYPE: Journal LANGUAGE: English

REFERENCE COUNT: 46 THERE ARE 46 CITED REFERENCES AVAILABLE FOR THIS

RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L13 ANSWER 5 OF 5 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1983:15249 CAPLUS

DOCUMENT NUMBER: 98:15249

TITLE: Antibodies against polyethylene glycol produced in

animals by immunization with monomethoxy polyethylene

glycol-modified proteins

AUTHOR(S): Richter, Ary Wolfgang; Aakerblom, Eva

CORPORATE SOURCE: Dep. Biomed. Res., Pharm. AB, Uppsala, 75104, Swed.

SOURCE: International Archives of Allergy and Applied

Immunology (1983), 70(2), 124-31 CODEN: IAAAAM; ISSN: 0020-5915

DOCUMENT TYPE: Journal LANGUAGE: English

=> s antibod? (w) (against or to) (w) (peg or (polyethylene glycol))

455631 ANTIBOD? 678912 AGAINST

37 AGAINSTS

678927 AGAINST

(AGAINST OR AGAINSTS)

0 TO 1364 TOS

1364 TO

(TO OR TOS)

35011 PEG 1176 PEGS

35503 PEG (PEG OR PEGS)

338433 POLYETHYLENE

12590 POLYETHYLENES

342295 POLYETHYLENE

(POLYETHYLENE OR POLYETHYLENES)

344776 GLYCOL 44765 GLYCOLS

360101 GLYCOL

(GLYCOL OR GLYCOLS)

97872 POLYETHYLENE GLYCOL

(POLYETHYLENE (W) GLYCOL)

L14 4 ANTIBOD? (W) (AGAINST OR TO) (W) (PEG OR (POLYETHYLENE GLYCOL))

=> d ibib 1-4

L14 ANSWER 1 OF 4 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER:

2006:191308 CAPLUS

TITLE:

Control of hyperuricemia in subjects with refractory gout, and induction of antibody against poly(ethylene)

glycol (PEG), in a phase I trial of subcutaneous

PEGylated urate oxidase

AUTHOR(S):

Ganson, Nancy J.; Kelly, Susan J.; Scarlett, Edna;

Sundy, John S.; Hershfield, Michael S.

CORPORATE SOURCE:

Division of Rheumatology, Duke University Medical

Center, Durham, NC, 27710, USA

SOURCE:

Arthritis Research & Therapy (2006), 8(1), No pp.

given

CODEN: ARTRCV; ISSN: 1478-6362

URL: http://arthritis-research.com/content/pdf/ar1861.

pdf

PUBLISHER: BioMed Central Ltd.

DOCUMENT TYPE: Journal; (online computer file)

LANGUAGE: English

L14 ANSWER 2 OF 4 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1985:539940 CAPLUS

DOCUMENT NUMBER: 103:139940

TITLE: Studies on antigenicity of the polyethylene glycol

(PEG) -modified uricase

AUTHOR(S): Tsuji, Junichi; Hirose, Katsumi; Kasahara, Etsuko;

Naitoh, Maki; Yamamoto, Itaru

CORPORATE SOURCE: Toyobo Res. Cent., Toyobo Co., Ltd., Ohtsu, 520-02,

Japan

SOURCE: International Journal of Immunopharmacology (1985),

7(5), 725-30

CODEN: IJIMDS; ISSN: 0192-0561

DOCUMENT TYPE: Journal LANGUAGE: English

L14 ANSWER 3 OF 4 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1983:15249 CAPLUS

DOCUMENT NUMBER: 98:15249

TITLE: Antibodies against

polyethylene glycol produced in

animals by immunization with monomethoxy polyethylene

glycol-modified proteins

AUTHOR(S): Richter, Ary Wolfgang; Aakerblom, Eva

CORPORATE SOURCE: Dep. Biomed. Res., Pharm. AB, Uppsala, 75104, Swed.

SOURCE: International Archives of Allergy and Applied

Immunology (1983), 70(2), 124-31 CODEN: IAAAAM; ISSN: 0020-5915

DOCUMENT TYPE: Journal LANGUAGE: English

L14 ANSWER 4 OF 4 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1977:449460 CAPLUS

DOCUMENT NUMBER: 87:49460

TITLE: Effect of covalent attachment of polyethylene glycol

on immunogenicity and circulating life of bovine liver

catalase

AUTHOR(S): Abuchowski, Abraham; McCoy, John R.; Palczuk, Nicholas

C.; Van Es, Theo; Davis, Frank F.

CORPORATE SOURCE: Dep. Biochem., Rutgers, State Univ., New Brunswick,

NJ, USA

SOURCE: Journal of Biological Chemistry (1977), 252(11),

3582-6

CODEN: JBCHA3; ISSN: 0021-9258

DOCUMENT TYPE: Journal LANGUAGE: English

=> s clear? or remov?

437130 CLEAR?

1200397 REMOV?

L15 1611632 CLEAR? OR REMOV?

=> s 115 and 114

L16 0 L15 AND L14

195985 RETAIN?

L17 195985 L14 AND RETENT? OR RETAIN?

=> s 114 and (retent? or retain?)

179765 RETENT?

195985 RETAIN?

L18 1 L14 AND (RETENT? OR RETAIN?)

=> d ibib

L18 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER:

1977:449460 CAPLUS

DOCUMENT NUMBER:

87:49460

TITLE:

Effect of covalent attachment of polyethylene glycol on immunogenicity and circulating life of bovine liver

catalase

AUTHOR(S):

Abuchowski, Abraham; McCoy, John R.; Palczuk, Nicholas

C.; Van Es, Theo; Davis, Frank F.

CORPORATE SOURCE:

Dep. Biochem., Rutgers, State Univ., New Brunswick,

NJ, USA

SOURCE:

Journal of Biological Chemistry (1977), 252(11),

3582-6

CODEN: JBCHA3; ISSN: 0021-9258

DOCUMENT TYPE: LANGUAGE:

Journal English

=> d abs kwic

L18 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2006 ACS on STN

AB Methoxypolyethylene glycols of 1900 daltons (PEG-1900) or 5000 daltons (PEG-5000) were covalently attached to bovine liver catalase (I) using 2,4,6-trichloro-s-triazine as the coupling agent. Rabbits were immunized i.v. and i.m. with I modified by covalent attachment of PEG-1900 to 43% of the NH2 groups (PEG-1900-I). The i.v. antiserum had no detectable

antibodies against PEG-1900-I or native I, whereas the i.m. antiserum contained antibodies to both PEG-1900-I and I. PEG-1900 did not react with either antiserum. I was prepared in which PEG-5000 was attached to 40% of the NH2 groups (PEG-5000-I). This I preparation did not react with either antiserum. PEG-1900-I retained 93% of its activity; PEG-5000-I retained 95%. PEG-5000-I resisted digestion by trypsin, chymotrypsin, and a protease from Streptomyces griseus. PEG-1900-I and PEG-5000-I had enhanced circulating lives in the blood of acatalasemic mice during repetitive i.v. injections. No evidence was seen of an immune response to injections of the modified I. Mice injected repetitively with PEG-5000-I remained immune competent

for unmodified I, and no evidence of tissue or organ damage was seen.

AB . . I modified by covalent attachment of PEG-1900 to 43% of the NH2 groups (PEG-1900-I). The i.v. antiserum had no detectable antibodies against PEG-1900-I or native I,

whereas the i.m. antiserum contained antibodies to both PEG-1900-I and I. PEG-1900 did not react with either. . . PEG-5000 was attached to 40% of the NH2 groups (PEG-5000-I). This I preparation did not react with either antiserum. PEG-1900-I retained 93% of its activity; PEG-5000-I

retained 95%. PEG-5000-I resisted digestion by trypsin,

chymotrypsin, and a protease from Streptomyces griseus. PEG-1900-I and PEG-5000-I had enhanced circulating lives. . .

=> file pctfull COST IN U.S. DOLLARS

SINCE FILE TOTAL
ENTRY SESSION
44.55 51.80

FULL ESTIMATED COST

SESSION

CA SUBSCRIBER PRICE

ENTRY -0.75

-0.75

FILE 'PCTFULL' ENTERED AT 10:57:26 ON 07 MAR 2006 COPYRIGHT (C) 2006 Univentio

FILE LAST UPDATED:

05 MAR 2006

<20060305/UPTX>

MOST RECENT UPDATE WEEK:

200608

FILE COVERS 1978 TO DATE

- >>> IMAGES ARE AVAILABLE ONLINE AND FOR EMAIL-PRINTS <<<
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 DEVELOPMENTS AND SEE OUR NEWS SECTION FOR FURTHER INFORMATION
- >>> UPDATING OF BIBLIOGRAPHIC DATA DELAYED DUE TO DELIVERY FORMAT CHANGES <<<
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- >>> SDI SEARCHES (ALERTS) WILL BE RESUMED WHEN BIBLIOGRAPHIC DATA BECOME AVAILABLE <<<

=> s anti () PEG

170585 ANTI

169 ANTIS

170619 ANTI

(ANTI OR ANTIS)

35845 PEG

5031 PEGS

38005 PEG

(PEG OR PEGS)

L19 7 ANTI (W) PEG

=> s 119 not py>2000

550224 PY>2000

L20 0 L19 NOT PY>2000

=> s antibod? (w) (against or to) (w) (peg or (polyethylene glycol))

85695 ANTIBOD?

344502 AGAINST

14 AGAINSTS

344503 AGAINST

(AGAINST OR AGAINSTS)

1040820 TO

3118 TOS

1040871 TO

(TO OR TOS)

35845 PEG

5031 PEGS

38005 PEG

(PEG OR PEGS)

132183 POLYETHYLENE

5725 POLYETHYLENES

132985 POLYETHYLENE

(POLYETHYLENE OR POLYETHYLENES)

106336 GLYCOL

41630 GLYCOLS

113363 GLYCOL

(GLYCOL OR GLYCOLS)

67563 POLYETHYLENE GLYCOL

(POLYETHYLENE (W) GLYCOL)

L21 15 ANTIBOD? (W) (AGAINST OR TO) (W) (PEG OR (POLYETHYLENE GLYCOL))

=> s 115 not py>2000

303559 CLEAR?

489065 REMOV?

550224 PY>2000

L22 293482 L15 NOT PY>2000

=> s 121 not py>2000

550224 PY>2000

L23 5 L21 NOT PY>2000

=> d ibib 1-5

L23 ANSWER 1 OF 5 PCTFULL COPYRIGHT 2006 Univentio on STN

ACCESSION NUMBER: 2006017355 PCTFULL

no bibliographic data available - please use FPI for PI information

DESIGNATED STATES

L23 ANSWER 2 OF 5 PCTFULL COPYRIGHT 2006 Univentio on STN

ACCESSION NUMBER: 2000024770 PCTFULL ED 20020515

TITLE (ENGLISH): DIMERIC THROMBOPOIETIN PEPTIDE MIMETICS BINDING TO MP1

RECEPTOR AND HAVING THROMBOPOIETIC ACTIVITY

TITLE (FRENCH): COMPOSES THROMBOPOIETIQUES

INVENTOR(S): LIU, Chuan-Fa;

FEIGE, Ulrich; CHEETHAM, Janet

PATENT ASSIGNEE(S): AMGEN INC.
LANGUAGE OF PUBL.: English
DOCUMENT TYPE: Patent

PATENT INFORMATION:

NUMBER KIND DATE
----WO 2000024770 A2 20000504

DESIGNATED STATES

W: AE AL AM AT AU AZ BA BB BG BR BY CA CH CN CR CU CZ DE

DK DM EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG UZ VN YU ZA ZW GH GM KE LS MW SD SL SZ TZ UG ZW AM AZ BY KG KZ MD RU TJ TM AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE BF BJ CF CG CI CM GA GN GW ML

MR NE SN TD TG

APPLICATION INFO.: WO 1999-US24834 A 19991022

PRIORITY INFO.: US 1998-60/105,348 19981023

L23 ANSWER 3 OF 5 PCTFULL COPYRIGHT 2006 Univentio on STN ACCESSION NUMBER: 1995004159 PCTFULL ED 20020514

TITLE (ENGLISH): BLOOD LEAD DIAGNOSTIC ASSAY

TITLE (FRENCH): PROCEDE DIAGNOSTIQUE DE DETERMINATION DE LA PRESENCE DE

PLOMB DANS LE SANG

INVENTOR(S): JAFFE, Eileen, K.

PATENT ASSIGNEE(S): FOX CHASE CANCER CENTER

DOCUMENT TYPE: Patent

PATENT INFORMATION:

NUMBER KIND DATE
----WO 9504159 A1 19950209

DESIGNATED STATES

W: CA JP AT BE CH DE DK ES FR GB GR IE IT LU MC NL PT SE

WO 1994-US8626 A 19940802 US 1993-8/100,980 19930803 APPLICATION INFO.: PRIORITY INFO.:

L23 ANSWER 4 OF 5 PCTFULL COPYRIGHT 2000 0....

ACCESSION NUMBER: 1993008838 PCTFULL ED 20020513

ORAL PHARMACEUTICAL COMPOSITION CONTAINING POLYETHYLENE

TMMUNOGLOBULIN CONJUGATE

TOWNSHAME IIN CONJUGUE

TITLE (FRENCH): COMPOSITION PHARMACEUTIQUE ORALE CONTENANT UN CONJUGUE

INVENTOR(S):

PATENT ASSIGNEE(S):

COMPOSITION PHARMACEUTIQUE ORALE CONTENANT ON CONJUGUE
D'IMMUNOGLOBULINE DE POLYETHYLENE GLYCOL
CUNNINGHAM-RUNDLES, Charlotte
MOUNT SINAI SCHOOL OF MEDICINE OF THE CITY UNIVERSITY
OF NEW YORK

OF NEW YORK

LANGUAGE OF PUBL.: English Patent DOCUMENT TYPE:

PATENT INFORMATION:

NUMBER KIND DATE _____ WO 9308838 A1 19930513

DESIGNATED STATES

AU CA JP AT BE CH DE DK ES FR GB GR IE IT LU MC NL SE

APPLICATION INFO.: WO 1992-US8784 A 19921015 PRIORITY INFO.: US 1991-7/783,360 19911028

L23 ANSWER 5 OF 5 PCTFULL COPYRIGHT 2006 Univentio on STN ACCESSION NUMBER: 1993000109 PCTFULL ED 20020513 TITLE (ENGLISH): METHOD OF STIMULATING IMMUNE RESPONSE USING GROWTH

HORMONE

PROCEDE DE STIMULATION DE LA REPONSE IMMUNITAIRE A TITLE (FRENCH):

L'AIDE D'HORMONE DE CROISSANCE

CARLSSON, Lena, Mariana, Susann; INVENTOR(S):

CLARK, Ross, G.; CRONIN, Michael, J.; JARDIEU, Paula, M.

PATENT ASSIGNEE(S): GENENTECH, INC.
LANGUAGE OF PUBL.: English Patent DOCUMENT TYPE:

PATENT INFORMATION:

NUMBER KIND DATE _______ WO 9300109 A1 19930107

DESIGNATED STATES

W: AU CA JP AT BE CH DE DK ES FR GB GR IT LU MC NL SE

WO 1992-US4489 A 19920529 APPLICATION INFO.: PRIORITY INFO.: US 1991-723,359 19910628

=> d kwic 5

ANSWER 5 OF 5 PCTFULL COPYRIGHT 2006 Univentio on STN L23

DETD . . antigen did not yield detectable antibodies against P EG-1 900-catalase or native

catalase whereas the antiserum from intramuscular administered antigen contained antibodies

to PEG catalase and native catalase. PEG catalase did not react with either antiserum.

 \Rightarrow d kwic 1-5

L23 ANSWER 1 OF 5 PCTFULL COPYRIGHT 2006 Univentio on STN DETD . . . measured using a sandwich ELISA that utilizes a capture antibody to aprotinin (produced as described in Example 6) and a reporter antibody to PEG (e.g., AGP3 from Acadmica Sinica). Aprotinin variant plasma levels may also be measured using radiolabeled aprotinin variants (e.g., Shin, Pharm. Pharmcol. Commun.. . .

L23 ANSWER 2 OF 5 PCTFULL COPYRIGHT 2006 Univentio on STN

DETD . . . In contrast, treatment in the various cycles with PEG-rHuMGDF did show an inhibition in platelet response by Cycle 4, suggesting that antibodies to PEG-rHuMGDF have been generated and these anti-MGDF antibodies may be i h endogenous rhesus TPO.

L23 ANSWER 3 OF 5 PCTFULL COPYRIGHT 2006 Univentio on STN

DETD Polyclonal antibodies to PEGS can be made with the purified protein using methods known in the art. Antibodies are raised in suitable animals such. . .

L23 ANSWER 4 OF 5 PCTFULL COPYRIGHT 2006 Univentio on STN

concentrations (22,5 gg/ml); similar data were found for other concentrations of IgG tested, 225 gg/ml and 2.25 ggfml)
TABLE 7
BINDING OF A SECOND ANTIBODY
TO PEG-IgG CONJUGATES
% of Control
IgG Bound % of Control
IgG to ELISA IgG Detected
,Compound Plate* in Solution**
Native IgG 100 100
Conjugates.

L23 ANSWER 5 OF 5 PCTFULL COPYRIGHT 2006 Univentio on STN

DETD . . . antigen did not yield detectable antibodies against P EG-1 900-catalase or native catalase whereas the antiserum from intramuscular administered antigen contained antibodies

to PEG catalase and native catalase. PEG catalase did not react with either antiserum.

=> d his

```
FILE 'MEDLINE' ENTERED AT 10:47:38 ON 07 MAR 2006
L1
              7 S ANTI () PEG
L2
             4 S L1 NOT PY>2000
L3
             42 S ABS 2
              1 S ANTI () (POLYETHYLENE GLYCOL)
L4
            456 S ANTIBOD? (S) (AGAINST OR TO) (S) (PEG OR (POLYETHYLENE GLYCOL
L5
         626149 S CLEAR? OR REMOV?
L6
             68 S L6 AND L5
L7
L8
             49 S L7 NOT PY>1999
L9
             11 S ANTIBOD? (W) (AGAINST OR TO) (W) (PEG OR (POLYETHYLENE GLYCOL
L10
              0 S L9 AND L6
L11
              8 S L9 NOT PY>2000
     FILE 'CAPLUS' ENTERED AT 10:54:30 ON 07 MAR 2006
L12
             10 S ANTI () PEG
L13
              5 S L12 NOT PY>2000
              4 S ANTIBOD? (W) (AGAINST OR TO) (W) (PEG OR (POLYETHYLENE GLYCOL
L14
L15
        1611632 S CLEAR? OR REMOV?
L16
              0 S L15 AND L14
L17
         195985 S L14 AND RETENT? OR RETAIN?
L18
              1 S L14 AND (RETENT? OR RETAIN?)
     FILE 'PCTFULL' ENTERED AT 10:57:26 ON 07 MAR 2006
              7 S ANTI () PEG
L19
L20
              0 S L19 NOT PY>2000
L21
             15 S ANTIBOD? (W) (AGAINST OR TO) (W) (PEG OR (POLYETHYLENE GLYCOL
         293482 S L15 NOT PY>2000
L22
              5 S L21 NOT PY>2000
L23
=> s clear? or remov?
        303559 CLEAR?
        489065 REMOV?
L24
        578709 CLEAR? OR REMOV?
=> s 124 and 123
            5 L24 AND L23
L25
=> d kwic 1-5
L25
      ANSWER 1 OF 5
                         PCTFULL
                                   COPYRIGHT 2006 Univentio on STN
           . per molecule, denaturing the
       double-stranded DNA, renaturing the DNA to form double-stranded DNA
       which can include
       sense/antisense pairs from different nicked products, removing
       single-stranded portions from
       reformed duplexes by treatment with S1 nuclease, and ligating the
       resulting fragment library into
       an expression vector. By this.
       chain protected peptide may be cleaved with a base and the appropriate
       alcohol (e.g., methanol). Side chain protecting groups may be
       removed in the usual fashion by
       treatment with hydrogen fluoride to obtain the desired ester. In
       preparing peptide mimetics
       wherein the C-terminall carboxyl. . . dialkylamide (i.e., the
       C-terminus is --
       C(O)NRR,, where R and R, are alkyl, a lower alkyl). Side chain
       protection is then removed in the
       usual fashion by treatment with hydrogen fluoride to give the free
       amides, alkylamides, or
```

dialkylamides. measured using a sandwich ELISA that utilizes a capture antibody to aprotinin (produced as described in Example 6) and a reporter antibody to PEG (e.g., AGP3 from Acadmica Sinica). Aprotinin variant plasma levels may also be measured using radiolabeled aprotinin variants (e.g., Shin, Pharm. Pharmcol. Commun.. (80 mg/kg, i.p.) and treated with aprotinin (1 0 mg/kg, !.v.). Ten minutes later, the distal 2 mm of tail is removed and placed in to saline. The time for bleeding to stop is measured. Aprotinin and active variants reduce the bleeding time. COPYRIGHT 2006 Univentio on STN ANSWER 2 OF 5 PCTFULL Various studies using animal models (Ulich, TR. et al., Blood 86:971-976 (1995); Hokorn, M.M. et al., Blood 86:4486-4492 (1995)) have clearly demonstrated the therapeutic efficacies of TPO and MGDF in bone marrow transplantation and in the treatment of thrombocytopenia, a condition that often. Even if the Cys residues that normally form disulfide bonds in the Fe removed or replaced by other residues, the monomeric chains will generally dimerize through non-covalent interactions. The term Fe herein is used to. . In Fe deletion variants, one or more amino acid residues in an Fe polypeptide are removed. Deletions can be effected at one or both termini of the Fe polypeptide, or with removal of one or more residues within the Fe amino acid sequence. Deletion variants, therefore, include all fragments of an Fe polypeptide. . . In Fe substitution variants, one or more amino acid residues of an Fe polypeptide are removed and replaced with alternative residues. In one aspect, the substitutions are conservative in nature, however, the invention embraces substitutions that ore also. the Fe sequences. In particular, the amino acids at positions 7 and 10 of SEQ ID NO:5 are cysteine residues. One may remove each of these cysteine residues or substitute one or more such cysteine residues with other amino acids, such as Ala or. oil of theobroma. Such compositions may influence the physical state, stability, rate of in vivo release, and rate of in vivo clearance of the present proteins and derivatives. See, e.g., Remington's Phan-naceutical Sciences, 18th Ed. (I 990, Mack Publishing Co., Easton, PA 18042) pages.

L25

DETD

incorporated by reference. Such formulations may influence the physical state, stability, rate of in Wvo release, and rate of in vivo clearance of the

administered agents. Depending on the route of administration, a suitable dose may be calculated according to body weight, body surface. used for side chain protection of the Lys on the linker and Boc-Ile-OH used for the last coupling. Dde was removed by using anhydrous hydrazine (2% in NMP, 3x2min), followed by coupling with bromoacetic anhydride preformed by the action of DCC. For peptide. . . was effected at RT for 4 hr, using trifluoroacetic acid (TFA) containing 2.5% H20, 5% phenol, 2.5% triisopropylsilane and 2.5% thioanisole. After removal of TFA, the cleaved peptide was precipitated with cold anhydrous ether. Disulfide formation of the cyclic peptide was performed directly on the. Clearly, the activity of the tandem linked dimers may also depend on proper selection of the length and composition of the linker. . . second monomer) and parallel dimers (D terminal of first monomer linked to C terminal of second monomer) in the same assay clearly demonstrated the superiority of tandem dimerized product compared to parallel dimer products. It is interesting to note that a wide range of. . . protection of the lysine E-amine. Once the whole peptide chain was assembled, the N-terminal amine was reprotected with t-Boc. Dde was then removed to allow for the bromoacetylation. This strategy gave a high quality crude peptide which was easily purified using conventional reverse phase HPLC.. 5 M urea, pH 9. The pH of this mixture was then adjusted to pH 5 with acetic acid. The precipitate was removed by centrifugation and the supernatant was loaded onto a SP-Sepharose Fast Flow column equilibrated in 20 mM NaAc, 100 mM NaCl,. enhance the in vivo activity of the modified peptide by providing it a protection against proteolytic degradation and by slowing down its clearance through renal filtration. It was unexpected that pegylation could further increase the in vitro bioactivity of a tandem dimerized TNIP peptide in. In contrast, treatment in the various cycles with PEG-rHuMGDF did show an inhibition in platelet response by Cycle 4, suggesting that antibodies to PEGrHuMGDF have been generated and these anti-MGDF antibodies may be i h endogenous rhesus TPO.

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. the lungs or digestive tract and once ingested, lead accumulates in bones and teeth. Long-term chelation therapy can be used to remove lead from bone tissue. However, if lead poisoning is untreated, the sequestered lead in bone tissue can be reintroduced into.

The present invention includes the step of isolating PEGS from the sample, thereby removing the confounding effect of interfering substances in the sample composition. The use of PEGS as a biological marker is an.

and 10"8 M in hemolysate (P.N.B. Gibbs, A-G. Chaudhry and P.M. Jordan, Biochem. J. 230:25-34 (1985)), PEGS can be quantitatively removed from a hemolysate sample using monoclonal or polyclonal antibodies. PEGS can be isolated from the blood of a test subject using antibodies.

Polyclonal antibodies to PEGS can be made with the purified protein using methods known in the art. Antibodies are raised in suitable animals such.

PEGS for raising antibodies may be isolated from outdated blood by a method which uses a batch extraction technique to remove the hemoglobin (P.N.B. Gibbs, A-G. Chaudhry and P.M. Jordan, Biochem. J

(b) Lead-inhibited PEGS would be distinguished from active PEGS as follows: The double dipstick would be removed from the first vessel,

split in half, and each individual dipstick, labelled either A or B, would be placed in a. . .

reaction would be allowed to proceed for a short period of time, approximately five minutes. Alternatively, the dipsticks could be removed to a third vessel containing, respectively, Buffer A ALA and Buffer B plus ALA plus 10

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DETD . . is dissolved in a basic buffer solution, for example 0,01 M sodium phosphate buffer, pH 7,8, and then dialyzed against the buffer to **remove** residual salts. The concentrated serum Iq is then combined with activated PEG which can be obtained by a chemical process involving either 1,11-carbonyldiimidazole,.

> serum immunoglobulin G in 0,01 M sodium phosphate buffer at pH 7*8. The resulting solution was then dialyzed against the buffer to remove residual salts. Determination of the final concentration of the immunoqlobulin G was done spectrophotometrically using an extinction coefficient of 138 as E45 for.

50) to remove residual carbonyldiimidazole, The resulting activated PEG solution was dialyzed against distilled water, lyophilized, and stored desiccated, Example 3

Activated PEG produced by the method. . .

15 g SS-PEG, The mixture is stirred for 30 min at room-temperature and clarified by Millipore filtration (1.2 gm membrane), Unbound SS-PEG

is removed by dialysis against 10 volumes of buffer using an Amicon cell as described above, Each preparation of PEG-IgG is sterilized by filtration. . Heat aggregated human IgG and PEG-conjugates were produced by heating 10 mg/ml solutions of each in PBS to 630 for 30 minutes, After removing the largest (visible) aggregates by brief centrifugation (3,000 rpm from 5 minutes) the aggregates contained in the supernatants of these solutions were used. 42,0 to 79,6 percent of that found for native IgG, Example 12 Since in several of the above methods the binding of a second **antibody to PEG-**IgG conjugates to determine the biologic activities of these conjugates was used to compare PEG-IgG conjugates to native IgG, experiments to determine the relative. buffer, pH 4,5 with pepsin (Worthington Biochemical Corp,, Free Hold, NJ,) at an enzyme substrate ratio of 1:100, In one experiment, aliquots were ${\bf removed}$ from the reaction mixture at 1, 3f 51 7f 9 and 16 hours; in another, all reactions were stopped in 6 hours,. . . equal concentrations (22,5 gg/ml); similar data were found for other concentrations of IgG tested, 225 gg/ml and 2.25 ggfml) TABLE 7 BINDING OF A SECOND ANTIBODY TO PEG-IGG CONJUGATES % of Control IgG Bound % of Control IgG to ELISA IgG Detected ,Compound Plate* in Solution** Native IgG 100 100 Conjugates. ANSWER 5 OF 5 PCTFULL COPYRIGHT 2006 Univentio on STN . . tolerate. The short halflife of hGH is believed to be due to its small molecular weight (22,000 dafton), and rapid renal clearance, which has been found to be proportional to the molecular weight of protein in 35 circulation. Pegylation, meaning conjugating polyethylene glycol. .

bovine serum

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albumin exhibited a blood circulating life in rabbits similar to native bovine serum albumin $\dot{}$

go except that it was not **removed** from circulation by the eventual development of antibodies.

antigen did not yield detectable antibodies against P EG-1 900-catalase or native catalase whereas the antiserum from intramuscular administered antigen contained antibodies

to PEG catalase and native catalase. PEG catalase did not react with either antiserum. attached polymers such as polyethelene glycol, polypropylene glycol or carbohydrates; and 3) other macromolecules such as proteins, lipids, or glycolipids that reduce clearance and are not immunogenic. the continuous presence of GH when the GH is complexed with itself or with another macromolecule such that the GH is not cleared from the plasma. Intermittent GH use is defined as administration every 3 or more days, preferably every 6 or more days.. . . The present invention clearly shows that the s.c. administration of hGH as a continuous infusion or PEG-GH as daily or infrequent intermittent injections are optimal. Therefore, R is clear that at this dose of hGH (0.1 mg/kglday) continuous administration and daily injection have equal effects on whole body weight gain.. . and that the difference could be due to the GHBP giving a lo more continuous OH exposure and a larger response. Clearly the rate of weight gain for hGH plus GHBP is substantially greater. This increased spleen weight gain is also plotted as. growth of the thymus. This large absolute and relative growth response due to the met-hGH delivered by injections being cleared rapidly from the body whereas the PEG-hGH molecules are cleared more slowly and leads to a relative continuous GH exposure. At sacrifice, a blood sample was taken, and the liver, kidneys, heart, spleen, and thymus were removed, blotted dry, and immediately weighed. The spleen and thymus were immediately placed in buff er and then cells were obtained by. treated rats gained 34.5 + 9.4 g, and IGF and GH-treated rats gained 45.5 9.9 g. The response to IGR was clearly large, and the response to GH plus IGR appeared to be additive. IGR at the doses used was markedly anabolic. A. . The effect of IGR was clearly greater than that of hGH. There was a clear effect of IGR on all the organ weights. Liver increased by 6.6%, kidneys by 16.6%, heart by 18.5%, thymus by 27.0%,. 30 Using this scheme characteristic, thymic involution was seen in the excipient and the GH-treated groups. However, there was clear evidence of lymphocytic hyperplasia and the restoration of the thymic architecture in the groups that received des-IGF-I and des-IGF-I plus

bGH. The. . . blood sample was taken, and the thymus, spleen, heart, liver, kidney, and mandibular and mesenteric lymph nodes from each treatment group were removed aseptically and weighed. growth of the spleen and the thymus after 7 days of treatment with IGF-I. In the first experiment there was a clear dose-related effect of IGR on the spleen (excipient 105 ± 14, low dose 124 + 21; medium dose 145 ± 58;. . . experiment; this was probably due to the thymus being dissected differently by different dissectors. In the repeat experiment, one dissector uniformly removed the thymus, and significant thymic growth was detected (excipient, 15.2 ± 1.3; high dose 26.2 30 6.4 mg, p = 0.006). Femurs and tibias were removed from 40 donor animals. The bone marrow was flushed out with PBS. Cells were centrif uged and washed with saline. Viable. . at this time. The remaining animals were sacrif iced 23 days after the irradiation treatment. Spleens, thymuses, livers, and hearts were removed and weighed. Long bones were taken for histology and the spleens and thymuses retained for cytological and in vitro assays. Blood was. 92.0+8.3 IGF-I high 27.3+10.9* 1 51.2+9.3**. 1 125.0+35.4* 103.6+19.4 p < 0.05 of Marrow Only on same day P < 0.0115 There was a clear effect of IGR increasing thymus and spleen weight in this model. The body weight changes for all four groups are shown in Figure 21. The figure shows clearly the very large weight loss in the animals following radiation exposure. There was a clear dose-related effect of IGR protecting the mice from this catabolism. High-dosb IGR had a significant anabolic effect as early as seven. is as an immunoadjuvant. Whenever immunizing a mammal or avian, priming with GH and or IGR to accelerate the immunization process is clearly indicated in the present invention. . . of claim 1 wherein said method is accomplished using a growth CLMEN. hormone complexed to one or more macromolecules to reduce GH clearance from the blood plasma.